



GEOGRAPHIC MEANS TEST (GMT)

TECHNICAL MANUAL

DG*5.3*454

DG*5.3*456

IVM*2*58

IVM*2*62

EAS*1*13

November 2002

Department of Veterans Affairs
System Design & Development

Revision History

Revision Date	Brief Description	Author
11/5/02	Initial draft version	Karen Stella
11/22/02	Initial release version	Karen Stella

Table of Contents

REVISION HISTORY	I
INTRODUCTION.....	1
OVERVIEW	1
FUNCTIONALITY.....	1
RELATED MANUALS	2
IMPLEMENTATION AND MAINTENANCE.....	3
IMPLEMENTATION	3
MAINTENANCE.....	4
FILES.....	4
FILE LIST	4
FILE FLOW (RELATIONSHIPS BETWEEN FILES)	4
ROUTINES.....	5
CALLABLE ROUTINES	5
ROUTINE LISTS WITH BEFORE CHECKSUMS	7
EXPORTED OPTIONS	10
ARCHIVING & PURGING.....	10
CALLABLE ROUTINES, ENTRY POINTS, AND APPLICATION PROGRAMMER INTERFACES (APIS).....	10
EXTERNAL INTERFACES.....	10
<i>Z05, Demographic Data Transmission.....</i>	<i>10</i>
<i>Z07, Full Data Transmission from VAMC to HEC.....</i>	<i>10</i>
<i>Z10, Income Test Data Transmission from HEC to VAMC.....</i>	<i>10</i>
EXTERNAL/ INTERNAL RELATIONS	11
EXTERNAL RELATIONS	11
DATABASE INTEGRATION AGREEMENTS (DBIAs).....	11
INTERNAL RELATIONS	11
PACKAGE-WIDE VARIABLES.....	11
SOFTWARE PRODUCT SECURITY	12
SECURITY MANAGEMENT	12
SECURITY FEATURES	12
<i>Mail Groups, Alerts, and Bulletins</i>	<i>12</i>
<i>Remote Systems.....</i>	<i>12</i>
<i>Contingency Planning.....</i>	<i>12</i>
<i>Interfaces.....</i>	<i>12</i>
<i>Electronic Signatures.....</i>	<i>13</i>
<i>Security Keys.....</i>	<i>13</i>

<i>File Security</i>	13
<i>References</i>	13
<i>Official Policy</i>	13
GLOSSARY	14
ACRONYMS	14
DEFINITIONS	14
INDEX	15

Introduction

Overview

On January 23, 2002, President Bush signed Public Law 107-135, “The Department of Veterans Affairs Health Care Programs Enhancement Act of 2001”. Section 202 of this Act requires the implementation of HUD indices to determine geographic income thresholds in support of more discrete means testing. Veterans in Priority Group 7 are eligible for treatment as a low-income family under section 3(b) of the United States Housing Act of 1973 (42 U.S.C. 1437a(b)) for the area in which such veterans reside, regardless of whether such veterans are treated as single person families under paragraph (3)(A) of such section 3(b) or as families under paragraph (3)(b). This Act also established Priority Group 8 for any veterans described in section 1710(a)(3) of titles 38 U.S.C. who are not covered by Priority Group 7.

Functionality

The Geographic Means Testing (GMT) project introduces the following enhancements to the *VISTA* and HEC Legacy systems to support the requirements of the new regulation:

- The storage of the HUD indices and utilization of the HUD indices to determine the GMT Threshold based on the veteran’s address.
- ZIP Code linking so that the entry of the ZIP Code in the veteran’s address automatically populates the city, state and county fields.
- The creation of a new means test status, GMT Copay Required, and the calculations needed to assign this new status based on the GMT Threshold.
- The means test status, Category A, has been changed to MT Copay Exempt, and the means test status, Category C, has been changed to MT Copay Required.
- The creation of the new Priority Group 8 and the modifications to the logic for determining a veteran’s enrollment priority. The changes include the new rules for assigning Priority Group 7 and 8.
- Modifications to HL7 messages to accommodate the transmission of new data fields between the VAMCs and the HEC.

For a detailed description of the functionality included in this project, please refer to the Geographic Means Testing and Address Indexing for GMT Software Requirements Specification documents. These documents are linked from the GMT Project Notebook Page in the TSPR at <http://tspr.vista.med.va.gov/warboard/anotebk.asp?proj=625&Type=Active>

Related Manuals

- GMT Release Notes (DG_5_3_P454_RN.PDF)
- GMT Installation Guide (DG_5_3_P454_IG.PDF)
- GMT User Manual (DG_5_3_P454_UM.PDF)
- Revised IVM V. 2.0 Technical Manual (IVM_2_P58_TM.PDF)
- Revised Admission Discharge Transfer (ADT) Registration Menu User Manual (DG_5_3_P454_UM.PDF)

Implementation and Maintenance

Implementation

Implementation will require each site to install a series of patches in a sequential manner with approximately three to five working days to install the patches at each step. Synchronized national install timing is critical, as implementation cannot proceed from one step to the next step until all VAMCs have successfully completed each step. Due to the data conversion and billing components, there can be no exception to this requirement. It is critical that all sites promptly install the GMT patches in the order specified in the following table.

Step	Patches	Release to NVS	National Release to Field	Compliance Date	Comments
1	IB Part 1 IB*2.0*179	9/20/02	9/25/02	9/30/02	Effective Date: 10/1/02
2	AI Kernel XU*8*246 <i>The following patches are being released in HOST file DG_53_P454.KID:</i> Enrollment VISTA Part 1 DG *5.3*454 IVM*2*58 PIMS DG*5.3*466 SD*5.3*258	11/25/02	12/2/2002	12/4/2002	<ol style="list-style-type: none"> 1. Release Kernel patch first; sites must install before PIMS & Enrollment patches. 2. Release PIMS & Enrollment patches in HOST file DG_53_P454.KID. 3. NVS sends patches to Hines Anonymous directory 11/29 and monitors replication to Albany & SLC servers 11/30 – 12/1. 4. Project Implementation Team will contact sites not in compliance on 12/5/02.
3	HEC Legacy IVMB*2*686	N/A	Release to HEC Production 12/9/02	12/11/02	Monitor in HEC production 12/9-10-11
4	<i>The following files are being released in HOST file EAS_1_P13.KID:</i> Enrollment VISTA Part 2 EAS*1*13 DG*5.3*456 IVM*2*62 IB Part 2 IB*2.0*183 PRCA*4.5*181	12/5/02	12/16/02	12/19/02	<ol style="list-style-type: none"> 1. Release PIMS & Enrollment patches in HOST file EAS_1_P13.KID. 2. NVS sends patches to Hines Anonymous directory 12/13 and monitors replication to Albany & SLC servers 12/13 – 12/14. 3. Project Implementation Team will contact sites not in compliance on 12/20/02.
5	All patches listed in Steps 1 – 4 above must be operational at sites on 1/03/03				
6	IVM*2*67 DG*5.3*481 IB*2.0*202	Approximately 2 weeks after conversion completion (date TBD)	TBD	TBD	Clean up patches to remove code no longer used after GMT conversion completes. Patches will be released in a HOST file.

Maintenance

There is no special maintenance required for the GMT *VISTA* software. Patches will be released to remove the code no longer required after the one-time conversion runs at the HEC. Release dates will be dependent on the date the conversion process completes.

Files

File List

The following new files are exported with the GMT software:

File #	File Name	Description	Global
712.5	GMT Thresholds	Contains the HUD indices for each income year. This file is sent populated with data for income years 2001 and 2002.	^EAS(712.5,
712.6	GMT MSA Code	Contains the MSA codes associated with ZIP Codes. This file is sent populated with data.	^EAS(712.6,

File Flow (Relationships Between Files)

1. VA FileMan
2. Data Dictionary Utilities Menu
3. List File Attributes Option
4. Enter File # (or range of File #s)
5. Select Standard listing format
6. You will see what files point to the selected file. To see what files the selected file points to, look for fields that say "Pointer To".

Routines

Callable Routines

\$\$CHECK^DGENA3

This API is modified to include the new Enrollment priority 8 in the consistency check.

\$\$ABOVE^DGENEGT1

This API is modified to use the new enrollment priority 8 as the upper limit for the EGT check..

\$\$PRI^DGENELA4

This API is modified to add the business rules to calculate the new enrollment priority 8. The new means test status code (G) will be added as an eligibility factor for determining enrollment priority.

\$\$MTS^DGMTDD

This API is modified to add the logic for selecting the new means test status GMT Copay Required. The calculation of the total net worth is modified to use the new net worth calculation indicator.

\$\$ADJ^DGMTEO

This API is modified to display a message showing whether the adjudication is for a Means Test status or GMT status.

\$\$DELETE^DGMTH

This API is modified to include the deletion of the newly created HARDSHIP REASON Field (#2.09) when deleting Means Test Hardship information from the ANNUAL MEANS TEST File (#408.31). The API has also been modified to properly determine the appropriate Means Test status after the deletion has been performed.

\$\$FIELD^DGMTH

This API is modified to return the field number from the ANNUAL MEANS TEST File (#408.31) for the HARDSHIP("REASON") variable array subscript.

\$\$GET^DGMTH

This API is modified to populate the HARDSHIP("REASON") variable array subscript with the newly created Hardship Reason Field (#2.09) from the Annual Means Test File (#408.31).

\$\$STORE^DGMTH

This API is modified to store the value of the HARDSHIP("REASON") variable array subscript into the newly created Hardship Reason Field (#2.09) contained in the Annual Means Test File (#408.31).

Callable Routines, continued

\$\$ADD^DGMTHL1

This API is modified to allow the user to enter the newly created HARDSHIP REASON Field (#2.09) when adding hardship information.

\$\$EDIT^DGMTHL1

This API is modified to allow the user to edit the newly created HARDSHIP REASON Field (#2.09) when editing hardship information.

\$\$SET^DGMTHL1

This API is modified to include the newly created HARDSHIP REASON Field (#2.09) in the list that is created and displayed to the user.

\$\$AUTOCOMP^DGMTR

This API is modified at line AUTOCOMP+22 to include the new GMT status code G. The logic to determine the Means Test status from the test-determined status field when a hardship has been granted in line AUTOCOMP+27 is modified to add a check for the new GMT status.

COPYRX^DGMTR1

This API is modified at lines COPYRX+23 and COPYRX+25 to include the new GMT status code “G”.

CAT^DGMTSCU2

This API is modified to add the logic to calculate the veteran’s GMT threshold and return the value in variable DGMTG. It will also determine if the veteran’s Means Test status should be GMT Copay Required and set the Means Test category variable (DGCAT) equal to G.

DIS^DGMTU

This API is modified in line DIS+13 to include the new GMT status in the string of possible test types. The word “Category” was removed from the display of the status. Line DIS+17 was modified to include the new GMT status in the string of possible test types to display the date the test was completed.

DISPLAY^DGMTU23

This API is modified to add the display of the GMT THRESHOLD Field and to change the caption of the field “Threshold A” to “MT Threshold”.

SAVESTAT^DGMTU4

This API is modified to add the GMT status G to the logic to determine if the field should be set.

GETINCOM^DGMTU4

This API is modified in line GETINCOM+19 to add the GMT status “G” to the checking logic.

RXPRIME^DGMTU4

This API is modified in line RXPRIME+35 to add the GMT status “G” to the checking logic.

Callable Routines, continued

\$\$BIL^DGMTUB

This API is modified in line CK+6 to add the GMT status “16” to the checking logic.

\$\$CK^DGMTUB

This API is modified in line CK+6 to add the GMT status “16” to the checking logic.

\$\$GMT^DGMTUB

This API returns the value of “1” if the Means Test status of the patient is GMT Copay Required or Pending Adjudication for GMT at the time of specified date. It returns a value of “0” if the patient did not have a status of GMT Copay Required. Otherwise, it returns a value of “-1” if the status can not be determined.

\$\$PA^DGMTUTL

This API returns the value of “GMT” if the veteran has a Means Test status of Pending Adjudication and the GMT Threshold is greater than the MT Threshold. It returns a value of “MT” if the veteran has a Means Test status of Pending Adjudication and the GMT Threshold is not greater than the MT Threshold. Otherwise, it returns a null value.

CLEAR^IVMCME

This API is modified to allow all data pieces to be processed.

\$\$DCD^IVMCUC

This API is modified in line MT+5 to add the GMT status “G” to the checking logic.

Routine Lists with Before Checksums

Important Note: If your site is an alpha test site for the Race and Ethnicity and/or Patient Name Standardization projects, the checksums might vary for routine DGRPE.

Patch DG*5.3*454

Routine Name	Before Patch
DG53454P	N/A
DGENA3	20194026
DGENEGT1	8537062
DGMTU4	10288438
DGMTUTL	4449979
DGREGDD1	2633914
DGRPCE1	2920059
DGRPE	18872030

Routine List with Before Checksums, continued

Patch IVM*2*58

Routine Name	Before Patch
IVMCM6	16707132
IVMCME	4197356
IVMCME4	8230557
IVMCME5	12318459
IVMCZMT	13292541
IVMLDEM6	7399318
IVMPREC6	6620465
IVMPREC8	5532467
IVMPREC9	1073525
IVMPRECA	7451508
IVMPTRN9	9104406
IVMPTRNA	2648920

Patch EAS*1*13

Routine Name	Before Patch
EASAILK	N/A
EASGTLKP	N/A
EASMTRP1	6480721
EASSIGDT	11749194
EASSIGOV	7364604
EAS113P	N/A
EASAILK1	N/A

Routine List with Before Checksums, continued

Patch DG*5.3*456

Routine Name	Before Patch
DG53456P	N/A
DGENA3	20547437
DGENELA4	11623000
DGENRPA2	5177461
DGENRPT1	7164740
DGENRPT2	10506359
DGENRPT3	9241194
DGENRPT4	12621855
DGMTDD	5352672
DGMTEO	4567628
DGMTH	5313060
DGMTHL1	11896104
DGMTOREQ	8233525
DGMTR	11086376
DGMTR1	9043040
DGMTSC4	6585543
DGMTSCC	14012029
DGMTSCU	3843068
DGMTSCU2	4246859
DGMTU	15298997
DGMTU23	10345568
DGMTU4	10359057
DGMTUB	3016924

IVM*2*62

Routine Name	Before Patch
IVMCM6	17164423
IVMCME4	8691217
IVMCME5	12389015
IVMCUC	2799863
IVMRMCR1	10381592

Exported Options

The following menu options are created by the GMT software:

- GMT Threshold Lookup by ZIP Code – located on the Means Test User Menu and the Means Test Supervisor Menu
- View Patient Address – located on the Registration Menu

Archiving & Purging

There are no archiving and purging capabilities associated with GMT.

Callable Routines, Entry Points, and Application Programmer Interfaces (APIs)

Refer to the Routines Section of this document for a complete list the callable routines, entry points, and APIs that can be called by other products.

External Interfaces

The GMT software makes the following modifications to HL7 Messaging. For detailed HL7 specifications, refer to the Appendices of the IVM V. 2.0 Technical Manual.

Z05, Demographic Data Transmission

- Added FIPS County Code to the receiver process to support address indexing

Z07, Full Data Transmission from VAMC to HEC

- Added GMT Copayment Status to the ZMT Segment of the Z07 message and builder process
- Added Hardship Reason field to the ZMT Segment of the Z07 message and builder process
- Added RF1 segment to ORU~Z07 & ORF~Z07
- Send FIPS County Code to HEC to support address indexing

Z10, Income Test Data Transmission from HEC to VAMC

- Added GMT Copayment Status to the ZMT Segment.
- Added Hardship Reason field to the ZMT Segment.

External / Internal Relations

External Relations

Your system must be running the following minimum software versions or higher to successfully implement and operate the GMT software:

- Patient Information Management Systems (PIMS) V. 5.3
- Integrated Billing (IB) V. 2.0
- Accounts Receivable (AR) V. 4.5
- VA FileMan V. 22.0
- VA MailMan V. 8.0
- Kernel V. 8.0
- *VISTA* HL7 V. 1.6

Database Integration Agreements (DBIAs)

The GMT software has subscriber agreements with the following DBIAs. For detailed information about these agreements, refer to the GMT Software Design Document (SDD), or in FORUM, do the following:

1. From the DBA Menu, select the Integration Agreements Menu, then the Inquire Option.
2. At the “Select INTEGRATION REFERENCES:” prompt, enter the DBIA number.

- DBIA2462 (Active)
- DBIA 3180 (Active)
- DBIA434 (Active)
- DBIA263-O (Active)
- DBIA968 (Active)
- DBIA1866 (Retired)
- DBIA2234 (Retired)
- DBIA2461 (Active)

Internal Relations

All GMT options are designed to stand alone.

Package-wide Variables

All GMT variables meet SACC standards.

Software Product Security

Security Management

There are no unique legal requirements associated with the GMT software. In accordance with VHA Directive 10-93-142, the files and fields exported with the GMT software should not be modified locally.

Security Features

Mail Groups, Alerts, and Bulletins

There are no new mail groups created by the GMT software. A consistency check was added to compare the GMT Threshold value contained in the incoming Z10 HL7 message to the calculated GMT Threshold from the **VISTA** site. If the values do not match, a bulletin will be generated and sent to the DGMT MT/CT UPLOAD ALERTS mail group and the processing of the Z10 HL7 message will proceed as normal. NOTE: This consistency check is nonfatal.

Remote Systems

The Health Eligibility Center (HEC) system sends eligibility data, enrollment data, income data, and means test data to the local VA Medical Centers (VAMCs) using HL7 messaging. For detailed HL7 specifications, and to view an HL7 Flow Diagram, refer to the appendices of the Income Verification Match (IVM) V. 2.0 Technical Manual in the **VISTA** Documentation Library (VDL) at http://vista.med.va.gov/vdl/Financial_Admin.asp#App44.

Contingency Planning

Using services should have a local contingency plan to be used in the event of application problems in a live environment. The plan should identify the procedure(s) for maintaining the functionality provided by Error Processing Phase 1 software in the event of system outage. Field Station Information Security Officers (ISOs) can get assistance from the regional ISO (RISO).

Interfaces

There are no specialized (not VA-produced) products (hardware and/or software) embedded within or required by the GMT software.

Electronic Signatures

There are no electronic signatures required for the GMT software.

Security Keys

EAS GMT COUNTY EDIT

Users holding this new security key have the ability to edit the STATE and COUNTY fields in the PATIENT File (#2).

File Security

The following is a list of recommended VA FileMan access codes for the files in the MEGA Regulation software.

File #	Name	DD Access	RD Access	WR Access	DEL Access	LAYGO Access	AUDIT Access
712.5	GMT THRESHOLD	@	@	@	@	@	@
712.6	GMT MSA CODE	@	@	@	@	@	@

References

On January 23, 2002, President Bush signed Public Law 107-135, “The Department of Veterans Affairs Health Care Programs Enhancement Act of 2001”. Section 202 of this Act requires the implementation of HUD indices to determine geographic income thresholds in support of more discrete means testing. Veterans in Priority Group 7 are eligible for treatment as a low-income family under section 3(b) of the United States Housing Act of 1973 (42 U.S.C. 1437a(b)) for the area in which such veterans reside, regardless of whether such veterans are treated as single person families under paragraph (3)(A) of such section 3(b) or as families under paragraph (3)(b). This Act also established Priority Group 8 for any veterans described in section 1710(a)(3) of titles 38 U.S.C. who are not covered by Priority Group 7.

Official Policy

In accordance with VHA Directive 10-93-142, the files and fields exported with the GMT software should not be modified locally.

Glossary

Acronyms

Acronym	Description
AI	Address Indexing
AR	Accounts Receivable
FIPS	Federal Information Processing Standard
GMT	Geographic Means Test
HEC	Health Eligibility Center
HUD	U.S. Department of Housing and Urban Development
IB	Integrated Billing
MT	Means Test
NVS	National VISTA Support
PIMS	Patient Information Management System
VAMC	Veterans Administration Medical Center
OPP	Office of Policy and Planning
LTC	Long Term Care
HAS	Health Administration Service
OI	Office of Information

Definitions

Term	Definition
Disenrollment	Voluntary request from veteran to discontinue enrollment in the VA Health Care system
GMT Thresholds	a.k.a. HUD Indices. Geographic income level thresholds set yearly by the U.S. Department of Housing and Urban Development
MT Thresholds	Income threshold levels set yearly within the VA for the purpose of establishing benefit levels for veterans
HEC Legacy System	M-based database currently used at the HEC

Index

A

Acronyms.....	14
Archiving & Purging.....	10

C

Callable Entry Points & APIs	10
Callable Routines.....	5
Contingency Planning.....	12

D

Database Integration Agreements (DBIAs)	11
---	----

E

Electronic Signatures	13
Exported Options	10
External Interfaces	10
External Relations.....	11
External/ Internal Relations	11

F

File Flow (Relationships between files)	4
File List.....	4
File Security.....	13
Files.....	4
Functionality	1

G

Glossary	14
----------------	----

I

Implementation	3
Index	15
Interfaces.....	12
Internal Relations.....	11
Introduction.....	1

M

Mail Groups, Alerts, and Bulletins	12
Maintenance.....	4

O

Official Policy.....	13
Overview.....	1

P

Package-wide Variables.....	11
-----------------------------	----

R

Related Manuals.....	2
Remote Systems.....	12
Revision History	i
Routines	5

S

Security	12
Security Features.....	12
Security Keys	13

T

Table of Contents.....	ii
------------------------	----